What is claimed is:

1. An AV data wireless communication system comprising:

an AV data transmitter encrypting an AV data signal including a voice or a picture with a communication key signal, and transmitting the encrypted AV data signal; and

an AV data receiver decrypting the received AV data signal, wherein

in the case where one of the AV data transmitter and the AV data receiver is defined as a first communication apparatus and the other one is defined as a second communication apparatus,

when the first communication apparatus requests the second communication apparatus to transmit the communication key signal,

the second communication apparatus generates two or more setting key signals based on the communication key signal of the second communication apparatus, and transmits all of the setting key signals to the first communication apparatus using different transfer mediums, respectively, the different transfer mediums being as many as the setting key signals, and

the first communication apparatus decodes the original communication key signal using all of the received setting key signals, and establishes communication with the second communication apparatus.

2. The AV data wireless communication system according to claim 1, wherein

one of the transfer mediums is a transfer medium used when the AV data signal is transmitted and received.

3. The AV data wireless communication system according to claim 1, further comprising:

an electronic device that mediates one of the transfer mediums, wherein

after the second communication apparatus transmits one of the setting key signals to the electronic device and the electronic device stores the transmitted setting key signal, the electronic device transmits the setting key signal to the first communication apparatus.

4. An AV data wireless communication system comprising:

an AV data transmitter encrypting an AV data signal including a voice or a picture with a communication key signal, and transmitting the encrypted AV data signal; and

an AV data receiver decrypting the received AV data signal, wherein

in the case where one of the AV data transmitter and the AV data receiver is defined as a first communication apparatus and the other one is defined as a second communication apparatus,

when the first communication apparatus requests the second communication apparatus to transmit the communication key signal,

the second communication apparatus generates a first setting key signal and a second setting key signal based on the communication key

signal of the second communication apparatus, transmits the first key signal to the first communication apparatus using a first transfer medium, and transmits the second setting key signal to the first communication apparatus using a second transfer medium, and

the first communication apparatus decodes the original communication key signal using the received first and second setting key signals, stores the communication key signal, and establishes communication with the second communication apparatus.

5. The AV data wireless communication system according to claim 4, wherein

in the second communication apparatus, the first setting key signal and the second setting key signal each vary according to timings at which the first and second setting key signals are generated.

6. The AV data wireless communication system according to claim 5, wherein

time information is synchronized between the first communication apparatus and the second communication apparatus, and

the second communication apparatus generates the first setting key signal and the second setting key signal, which vary every time the first and second setting key signals are generated, using the time information upon generation of the first setting key signal and the second setting key signal.

7. The AV data wireless communication system according to claim 6, wherein

when the first communication apparatus decodes the communication key signal based on the first setting key signal and the second setting key signal, the first communication apparatus decodes the communication key signal using the time information.

8. The AV data wireless communication system according to claim 7, wherein

when the first communication apparatus decodes the communication key signal based on the first setting key signal and the second setting key signal, the first communication apparatus uses the time information while changing the time information by as much as a predetermined time.

9. The AV data wireless communication system according to claim 4, wherein

at least one of the first setting key signal and the second setting key signal is transmitted from the second communication apparatus to the first communication apparatus in a specific period.

10. The AV data wireless communication system according to claim 4, wherein

when the first communication apparatus receives the first setting key signal, the first communication apparatus requests the second

communication apparatus to transmit the second setting key signal.

11. The AV data wireless communication system according to claim 10, wherein

the second communication apparatus transmits the second setting key signal for a certain period after the first communication apparatus requests the second communication apparatus to transmit the second setting key signal.

12. The AV data wireless communication system according to claim 4, wherein

when the second communication apparatus receives a changeover completion signal indicating that the communication key signal is generated and stored, from the first communication apparatus, the second communication apparatus finishes transmitting the second setting key signal.

13. The AV data wireless communication system according to claim 4, wherein

at least one of the first communication apparatus and the second communication apparatus has a communication apparatus authentication code for authenticating the other communication apparatus.

14. The AV data wireless communication system according to claim 4, wherein

at least one of the first communication apparatus and the second communication apparatus has a communication apparatus authentication code based on which the at least one of the first communication apparatus and the second communication apparatus is authenticated by the other communication apparatus.

15. The AV data wireless communication system according to claim 4, wherein

the second communication apparatus has a communication apparatus authentication code for authenticating the first communication apparatus, and

when the second communication apparatus has transmitted the communication apparatus authentication code to the first communication apparatus through the first transfer medium,

the first communication apparatus determines that the transmitted code is the communication apparatus authentication code, and transmits the communication apparatus authentication code to the second communication apparatus, and

the second communication apparatus receives the communication apparatus authentication code transmitted from the first communication apparatus, and authenticates the first communication apparatus based on the received communication apparatus authentication code and the communication apparatus authentication code stored in the second communication apparatus.

16. The AV data wireless communication system according to claim 4, wherein

one of the first transfer medium and the second transfer medium is a transfer medium used when the AV data is transmitted and received.

17. The AV data wireless communication system according to claim 4, wherein

one of the first transfer medium and the second transfer medium is a transfer medium that mediates an electronic device, and

one of the first setting key signal and the second setting key signal is transmitted from the second communication apparatus to the electronic device, stored in the electronic device, and transmitted from the electronic device to the first communication apparatus.

18. The AV data wireless communication system according to claim 17, wherein

after transmitting the setting key signal that is one of the first setting key signal and the second setting key signal to the first communication apparatus, the electronic device deletes the setting key signal stored in the electronic device.

19. The AV data wireless communication system according to claim 18, wherein

when the electronic device receives a changeover completion signal indicating that the communication key signal is generated and

stored, from the first communication apparatus, the electronic device deletes the setting key signal stored in the electronic device.

20. The AV data wireless communication system according to claim 17, wherein

the electronic device has an electronic device authentication code based on which at least one of the first communication apparatus and the second communication apparatus authenticates the electronic device.

21. The AV data wireless communication system according to claim 20, wherein

when the electronic device has transmitted the electronic device authentication code to the second communication apparatus and the second communication apparatus has authenticated the electronic device based on the electronic device authentication code, the second communication apparatus transmits the setting key signal to the electronic device.

22. The AV data wireless communication system according to claim 20, wherein

when the electronic device has transmitted the electronic device authentication code to the first communication apparatus and the first communication apparatus has authenticated the electronic device based on the electronic device authentication code, the first communication apparatus receives the setting key signal from the electronic device.

23. The AV data wireless communication system according to claim 17, wherein

the second communication apparatus has a communication apparatus authentication code for authenticating the first communication apparatus, and

when the communication apparatus authentication code has been transmitted from the second communication apparatus to the electronic device and stored in the electronic device,

the electronic device transmits the communication apparatus authentication code to the first communication apparatus, and the first communication apparatus determines that the transmitted code is the communication apparatus authentication code and transmits the communication apparatus authentication code to the second communication apparatus, and

the second communication apparatus receives the communication apparatus authentication code transmitted from the first communication apparatus and authenticates the first communication apparatus based on the received communication apparatus authentication code and the communication apparatus authentication code stored in the second communication apparatus.

24. The AV data wireless communication system according to claim 17, wherein

the first communication apparatus and the second communication

apparatus have a first communication apparatus authentication code and a second communication apparatus authentication code for authentication, respectively, and

when the second communication apparatus authentication code has been transmitted from the second communication apparatus to the electronic device and stored in the electronic device,

the first communication apparatus transmits the first communication apparatus authentication code to the electronic device, and

the electronic device authenticates the first communication apparatus based on the received first communication apparatus authentication data and the stored second communication apparatus authentication code.

25. The AV data wireless communication system according to claim 17, wherein:

the first communication apparatus and the second communication apparatus comprise a connection state notification unit notifying that the first communication apparatus and the second communication apparatus are communicable with the electronic device.

26. The AV data wireless communication system according to claim 25, wherein

when it is determined by the connection state notification unit that the first communication apparatus and the second communication

apparatus are communicable with the electronic device, the electronic device is notified that the first communication apparatus and the second communication apparatus are communicable with the electronic device.

27. The AV data wireless communication system according to claim 26, wherein

the electronic device is a remote controller that holds optical communication with the first communication apparatus and the second communication apparatus,

each of the first communication apparatus and the second communication apparatus includes:

a first light reception/emission unit dedicated to the electronic device; and

a second light reception/emission unit for holding optical communication with a remote controller other than the electronic device that operates the first communication apparatus and the second communication apparatus, and

when it is determined by the connection state notification unit that the first communication apparatus and the second communication apparatus are communicable with the electronic device, the first light reception/emission unit performs a light emission operation to thereby notify the electronic device that the first communication apparatus and the second communication apparatus are communicable with the electronic device.

28. The AV data wireless communication system according to claim 27, wherein

each of the first communication apparatus and the second communication apparatus includes a cap that covers the first light reception/emission unit, the first light reception/emission unit being provided within each of the first communication apparatus and the second communication apparatus, and

when the cap is opened to insert the electronic device and the electronic device faces the first light reception/emission unit, it is determined by the connection state notification unit that the communication apparatus is communicable with the electronic device.

29. The AV data wireless communication system according to claim 17, wherein

the electronic device holds wired communication with the first communication apparatus and the second communication apparatus.

30. The AV data wireless communication system according to claim 17, wherein

the electronic device holds wireless communication with the first communication apparatus and the second communication apparatus.

31. The AV data wireless communication system according to claim 30, wherein

the electronic device is a remote controller that transmits an

operation signal for operating at least one of the first communication apparatus and the second communication apparatus.

32. A communication apparatus comprising:

a first interface connected to a first transfer medium through which an AV data signal including a voice or a picture is transmitted and received;

a second interface connected to a second transfer medium other than the first transfer medium;

a cipher key storage unit storing a communication key signal for encrypting or decrypting the AV data signal; and

a cipher key changeover control unit generating the communication cipher key by performing a specific arithmetic operation, and storing the communication cipher key in the cipher key storage unit, wherein

when the communication apparatus requests the communication key signal of a communication apparatus other than the communication apparatus so as to communicate and connect with the other communication apparatus,

the communication apparatus receives a first setting key signal and a second setting key signal generated by the other communication apparatus based on the communication key signal at the first interface and the second interface through the first transfer medium and the second transfer medium, respectively, and

the cipher key changeover control unit performs the specific

arithmetic operation using the received first and second setting key signals, thereby decoding the communication key signal and storing the decoded communication key signal in the cipher key storage unit.

33. The communication apparatus according to claim 32, wherein

when the communication key signal is decoded based on the first setting key signal and the second setting key signal, time information is utilized while changing the time information by as much as a predetermined time.

34. The communication apparatus according to claim 32, wherein

the communication apparatus receives at least one of the first setting key signal and the second setting key signal in a specific period.

35. The communication apparatus according to claim 32, wherein

when receiving the first setting key signal, the communication apparatus requests the other communication apparatus to transmit the second setting key signal.

36. The communication apparatus according to claim 32, wherein

the communication apparatus has a communication apparatus

authentication code for authenticating the other communication apparatus.

37. The communication apparatus according to claim 32, wherein

the communication apparatus has a communication apparatus authentication code based on which the other communication apparatus authenticates the communication apparatus.

38. The communication apparatus according to claim 32, wherein

the second transfer medium is a transfer medium that mediates an electronic device, and

the second setting key signal transmitted from the other communication apparatus to the electronic device and stored in the electronic device is transmitted from the electronic device and received by the communication apparatus through the second interface.

39. The communication apparatus according to claim 38, wherein

the communication apparatus has an electronic device authentication code based on which the electronic device is authenticated.

40. The communication apparatus according to claim 39,

wherein

after authenticating the electronic device based on the electronic device authentication code transmitted from the electronic device, the communication apparatus receives the setting key signal from the electronic device.

41. The communication apparatus according to claim 38, further comprising:

a connection state notification unit notifying that the communication apparatus is communicable with the electronic device.

42. The communication apparatus according to claim 41, wherein

when determining by the connection state notification unit that the communication apparatus is communicable with the electronic device, the communication apparatus is notifies the electronic device that the communication apparatus is communicable with the electronic device.

43. The communication apparatus according to claim 42, further comprising:

a first light reception/emission unit for holding optical communication with the electronic device; and

a second light reception/emission unit for holding optical communication with a remote controller other than the electronic device, wherein

when it is determined by the connection state notification unit that the communication apparatus is communicable with the electronic device, the first light reception/emission unit performs a light emission operation to thereby notify the electronic device that the communication apparatus is communicable with the electronic device.

44. The communication apparatus according to claim 43, further comprising:

a cap that covers the first light reception/emission unit, the first light reception/emission unit being provided within the communication apparatus, wherein

when the cap is opened to insert the electronic device and the electronic device faces the first light reception/emission unit, it is determined by the connection state notification unit that the communication apparatus is communicable with the electronic device.

45. A communication apparatus comprising:

a first interface connected to a first transfer medium through which an AV data signal including a voice or a picture is transmitted and received;

a second interface connected to a second transfer medium other than the first transfer medium;

a cipher key storage unit storing a communication key signal for encrypting or decrypting the AV data signal; and

a setting key signal generation unit which reads out the

communication key signal stored in the cipher key storage unit, which performs a specific arithmetic processing, and which generates a first setting key signal and a second setting key signal when determining that the communication cipher key signal is requested, wherein

the first setting key signal and the second setting key signal generated by the setting key signal generation unit are outputted to the first transfer medium and the second transfer medium through the first interface and the second interface, respectively.

46. The communication apparatus according to claim 45, wherein

the first setting key signal and the second setting key signal each vary according to timings at which the first setting key signal and the second setting key signal are generated.

47. The communication apparatus according to claim 46, wherein

when the first setting key signal and the second setting key signal are generated, time information on generation of the first setting key signal and the second setting key signal is used to thereby generate the first setting key signal and the second setting key signal vary every time the first setting key signal and the second setting key signal are generated.

48. The communication apparatus according to claim 45,

wherein

at least one of the first setting key signal and the second setting key signal is transmitted in a specific period.

49. The communication apparatus according to claim 45, wherein

when transmission of the second setting key signal is requested after a communication apparatus other than the communication apparatus receives the fist setting key signal, the communication apparatus transmits the second setting key signal for a certain period.

50. The communication apparatus according to claim 45, wherein

when receiving a changeover completion signal indicating that the communication key signal is generated and stored, from a communication apparatus other than the communication apparatus, the communication apparatus finishes transmitting the second setting key signal.

51. The communication apparatus according to claim 45, wherein

the communication apparatus has a communication apparatus authentication code for authenticating a communication apparatus other than the communication apparatus.

52. The communication apparatus according to claim 45, wherein

the communication apparatus has a communication apparatus authentication code based on which a communication apparatus other than the communication apparatus authenticates the communication apparatus.

53. The communication apparatus according to claim 45, wherein

the second transfer medium is a transfer medium that mediates an electronic device, and

the communication apparatus medium transmits the second setting key signal to the electronic device.

54. The communication apparatus according to claim 53, wherein

the communication apparatus has an electronic device authentication code based on which the electronic device is authenticated.

55. The communication apparatus according to claim 54, wherein

after authenticating the electronic device based on the electronic device authentication code transmitted from the electronic device, the communication apparatus transmits the setting key signal to the

electronic device.

56. The communication apparatus according to claim 53, further comprising:

a connection state notification unit notifying that the communication apparatus is communicable with the electronic device.

57. The communication apparatus according to claim 56, wherein

when determining by the connection state notification unit that the communication apparatus is communicable with the electronic device, the communication apparatus notifies the electronic device that the communication apparatus is communicable with the electronic device.

58. The communication apparatus according to claim 57, further comprising:

a first light reception/emission unit for holding optical communication with the electronic device; and

a second light reception/emission unit for holding optical communication with a remote controller other than the electronic device, wherein

when it is determined by the connection state notification unit that the communication apparatus is communicable with the electronic device, the first light reception/emission unit performs a light emission operation to thereby notify the electronic device that the communication

apparatus is communicable with the electronic device.

59. The communication apparatus according to claim 58, further comprising:

a cap that covers the first light reception/emission unit, the first light reception/emission unit being provided within the communication apparatus, wherein

when the cap is opened to insert the electronic device and the electronic device faces the first light reception/emission unit, it is determined by the connection state notification unit that the communication apparatus is communicable with the electronic device.

60. An electronic device comprising:

an interface connected to a second transfer medium other than a first transfer medium, so as to communicate with a communication terminal that transmits and receives an AV data signal using the first transfer medium; and

a setting key signal storage unit that stores a second setting key signal generated based on a communication key signal so as to encrypt or decrypt the AV data signal, wherein

the electronic device is employed in the AV data wireless communication system according to claim 17, and

after receiving the second setting key signal transmitted from the second communication apparatus through the interface and storing the second setting key signal in the setting key signal storage unit, the

electronic device transmits the second setting key signal stored in the setting key signal storage unit to the first communication apparatus through the interface.

61. The electronic device according to claim 60, wherein

after transmitting the second setting key signal to the first communication apparatus, the electronic device deletes the second setting key signal stored in the setting key signal storage unit.

62. The electronic device according to claim 61, wherein

when receiving a changeover completion signal indicating that the communication key signal is generated and stored, from the first communication apparatus, the electronic device deletes the second setting key signal stored in the setting key signal storage unit.

63. The electronic device according to claim 60, wherein

the electronic device has an electronic device authentication code based on which at least one of the first communication apparatus and the second communication apparatus authenticates the electronic device.

64. The electronic device according to claim 60, wherein

the electronic device holds wired communication with the first communication apparatus and the second communication apparatus.

65. The electronic device according to claim 60, wherein

the electronic device holds wireless communication with the first communication apparatus and the second communication apparatus.

66. The electronic device according to claim 65, wherein

the electronic device is a remote controller that transmits an operation signal for operating at least one of the first communication apparatus and the second communication apparatus.